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EXAMINER

PONNALURI, PADMASHRI

ART UNIT	PAPER NUMBER
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1639

DATE MAILED: 09/17/2003

11

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/014,485

Applicant(s)

COMB ET AL.

Examiner

Padmashri Ponnaluri

Art Unit

1639

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 1-45.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-45 are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

*Election/Restrictions*

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-2, 15-16, drawn to a method for producing a motif-specific, context-independent antibody that recognizes a plurality of peptides or proteins within a genome that contains the motif, constructing a peptide library comprises a fixed motif comprising one or more invariant amino acids, classified in class 435, subclass 331. NOTE group I, motif does not have a modified amino acid.
  - II. Claims 3-16, drawn to a method for producing a motif-specific, context-independent antibody that recognizes a plurality of peptides or proteins within a genome that contains the motif, constructing a peptide library comprises a fixed motif comprising one to invariant amino acids including at least one modified amino acid, classified in class 435, subclass 331.
  - III. Claim 17, drawn to a method for producing a motif-specific, context-independent antibody that recognizes a plurality of peptides or proteins within a genome that contains the motif, constructing a peptide library comprises a fixed motif comprising one to six invariant amino acids, classified in class 435, subclass 331.  
NOTE group III, motif does not have a modified amino acid.
  - IV. Claim 18, drawn to a method for producing a motif-specific, context-independent antibody that recognizes a plurality of peptides or proteins within a genome that contains the motif, constructing a peptide library comprises a fixed motif comprising one to six invariant amino acids including at least one modified amino acid, classified in class 435, subclass 331.

Art Unit: 1639

- V. Claim 19, drawn to a motif-specific, context independent antibody, classified in class 530, subclass 387.1.
- VI. Claim 20, drawn to a motif-specific, context independent antibody which comprises one to six variant amino acids, classified in class 530, subclass 387.1.
- VII. Claims 21-26 (in-part), drawn to a motif-specific, context independent antibody that recognizes **kinase consensus**, classified in class 530, subclass 387.1.
- VIII. Claims 21-26 (in-part), drawn to a motif-specific, context independent antibody that recognizes **protein-protein binding motif**, classified in class 530 subclass 387.1.
- IX. Claims 21-26 (in-part), drawn to a motif-specific, context independent antibody that recognizes a motif comprising acetylated amino acid, classified in class 530, subclass 387.1.
- X. Claims 21-26 (in-part), drawn to a motif-specific, context independent antibody that recognizes a motif comprising nitrotyrosine, classified in class 530, subclass 387.1.
- XI. Claims 27, 33-36, drawn to a method for identifying an unknown substrate of an enzyme, classified in class 435, subclass 7.1.
- XII. Claims 28, 33-36, drawn to a method for detecting the modification state of a target substrate that contains a motif common to a plurality of substrates of an enzyme, classified in class 435, subclass 7.1.

- XIII. Claims 29, 33-36, drawn to a method for identifying an enzyme, classified in class 435, subclass 7.1.
- XIV. Claims 30, 33-36, drawn to a method for identifying an enzyme, classified in class 435, subclass 7.1.
- XV. Claims 31-36, drawn to method for profiling protein levels, classified in class 435, subclass 7.1.
- XVI. Claim 37, drawn to a motif-specific, context-independent antibody, classified in class 435, subclass 387.1.
- XVII. Claim 38, drawn to a motif-specific, context-independent antibody, classified in class 530, subclass 387.1.
- XVIII. Claim 39, drawn to a motif-specific, context-independent antibody, classified in class 530, subclass 387.1.
- XIX. Claim 40, drawn to an antibody, wherein the motif comprises all or part of kinase consensus, classified in class 530, subclass 387.1.
- XX. Claim 40 (inpart), drawn to an antibody, wherein the motif comprises all or part of protein binding motif, classified in class 5.0, subclass 387.1.
- XXI. Claim 41, drawn to a motif-specific, context-independent antibody, classified in class 530, subclass 387.1.
- XXII. Claim 42, drawn to a motif-specific, context-independent antibody, classified in class 530, subclass 387.1.
- XXIII. Claim 43, drawn to a motif-specific, context-independent antibody, classified in class 530, subclass 387.1.

Art Unit: 1639

XXIV. Claim 44, drawn to a motif-specific, context-independent antibody, classified in class 530, subclass 387.1.

XXV. Claim 45, drawn to a motif-specific, context-independent antibody, classified in class 530, subclass 387.1.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions of groups I-IV and XI-XV are all drawn to different methods. Groups I-IV are all drawn to different methods of making or producing an antibody, and groups XI-XV are all drawn to different methods of using the different antibodies prepared by the different methods of groups I-IV. The different methods of groups I-IV would result in different products (antibodies) and different antibodies are required for the methods of groups XI-XV. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). Thus restriction between the groups is proper.

3. Inventions of groups XI-XV (methods of use) and groups V-X, XVI-XXV (products) are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the different antibodies of groups V-X, XVI-XXV are used in different methods of groups XI-XV. Thus restriction between the groups is proper.

Art Unit: 1639

4. Inventions of groups I-IV (process of making) and groups V-X, XVI-XXV (products) are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the different antibodies could be prepared using various different methods. Thus restriction between the groups is proper.

5. Inventions of groups V-X, XVI-XXV are all drawn to different products, the different antibodies of groups V-X, XVI-XXV are all patentably distinct and are structurally and functionally different from each other. The different antibodies are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01).

6. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification and because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

Even though some of the groups are classified in the same class/subclass, this has no effect on the non-patent literature search. Different inventions or groups would require completely different searches in non-patent databases, and there is no exception that the searches would be co-extensive. Therefore, these do not create an undue search burden, and restriction for examination purposes as indicated is proper.

7. This application contains claims directed to the following patentably distinct species of the claimed invention:

A) If groups I is elected, applicants are requested to elect a single species for each of the following:

a) define the number of invariant amino acids in target motif;

Art Unit: 1639

b) Applicants are requested to elect a single species of target motif.

B) If group II is elected, applicants are requested to elect a single species for each of the following:

a) one single species of modified amino acid;

b) If modified amino acid is selected as phosphorylated amino acid, applicants are requested to elect a single amino acid (i.e., claim 5);

c) number of modified amino acids;

d) a single species of target motif (i.e., from claim 9);

e) a single species of target motif (I.e., kinase consensus, or protein binding motif);

f) if kinase consensus is elected in e), applicants are requested to elect a single species of kinase consensus;

g) If protein-binding motif is elected, applicants are requested to elect a single species of protein binding motif;

h) a single species of target motif (i.e., in claim 14);

i) length or number of amino acids in the peptide library.

C) If group III is elected applicants are requested to elect a single species for each of the following:

a) one single species of modified amino acid;

b) number of modified amino acids;

c) a single species of target motif.

D) If group IV is elected applicants are requested to elect a single species for each of the following:



Art Unit: 1639

a) one single species of modified amino acid;

b ) number of modified amino acids;

c) a single species of target motif.

E) If group V is elected applicants are requested to elect a single species for each of the following:

a) one single species of antibody

F) If group VI is elected applicants are requested to elect a single species of antibody.

G) If group either group VII or VIII is elected applicants are requested to elect a single species for each of the following:

a) a single species of target motif;

b) number of modified amino acids;

c) a single species of modified amino acid;

d) if kinase consensus is elected, a single species of kinase consensus;

e) if protein binding motif is elected, applicants are requested to elect a single protein binding motif.

I) If group IX is elected applicants are requested to elect a single species of antibody.

J) If group X is elected applicants are requested to elect a single species of antibody.

K) If either group XI, XII, XIII, or XIV is elected applicants are requested to elect a single species for each of the following:

a) motif common to plurality of substrates;

b) a single species of antibody .

Art Unit: 1639

L) If group XV is elected applicants are requested to elect a single species for each of the following:

- a) a single species of motif;
- b) a single species of antibody;
- c) If kinase consensus is elected, applicants are requested to elect a single species of kinase consensus;
- d) If protein binding motif is elected, applicants are requested to elect a single species of protein binding motif.

M) If either group XVI, XVII, XVIII, XIX, or XX is elected, applicants are requested to elect a single species of antibody.

The different species of target motifs and amino acids claimed are distinct and would result in patentably distinct products, thus species election is proper.

For this response to be complete and for search purposes, applicants should provide <sup>a</sup>the single species of motif, wherein each specific amino acid is defined by either a picture or formula.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Art Unit: 1639

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

8. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

9. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Padmashri Ponnaluri whose telephone number is 703-305-3884.

Art Unit: 1639

The examiner is on Flex Schedule and can normally be reached from Monday through Friday between 7 AM and 3.30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Wang can be reached on 703-306-3217. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0916.

Padmashri Ponnaluri  
Primary Examiner  
Art Unit 1639

Pp  
11 September 2003

  
**PADMASHRI PONNALURI**  
**PRIMARY EXAMINER**